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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,138	04/08/2005	Werner Jaeger	127-75824	1950
23643 7590 03/24/2008 BARNES & THORNBURG LLP 11 SOUTH MERIDIAN INDIANAPOLIS, IN 46204				
EXAMINER				
MULLS, JEFFREY C				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
03/24/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/509,138

**Applicant(s)**

JAEGER ET AL.

**Examiner**

Jeffrey C. Mullis

**Art Unit**

1796

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 19-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

The symbol in the upper right hand corner of the "X" in the structures "I" and possibly "III" of claims 1, 9, 21 and 22 appears to be a dot rather than a negative charge (-) as is clearly required while the style of the X's in the structure and rest of the independent claims differ. Correction is required.

Claims 2, 3, 4, 19 and 20-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "molar mass" is unclear since molar masses in macromolecular materials exist as a distribution which varies depending on the type of distribution i.e. weight or number average molecular weight and as the type of distribution is not stated at least claim 2 is unclear.

Viscosities vary depending on solvent and concentration and since applicants claims reciting viscosities do not recite such they are unclear.

Claim 21 is unclear in that the preamble recites a method of making a coagulating or flocculating agent but otherwise recites no actual process steps of making the agent and it is therefore unclear what process steps are encompassed. Claim 22 similarly recites no actual process steps pertinent to the process in the preamble.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neff et al. (US 5882525) in view of (US 4713431, admission at page 1, lines 29-33 of the specification).

Patentees disclose a polymer which may contain applicants monomers "I" at column 4, lines 47-58 and 4-80 parts per million of a "branching agent" (see the paragraph bridging columns 3 and 4) such as PEGDMA of molecular weight of 600 (see experiments 10-11 in column 9). The materials may be used as flocculants agents for effluent in the treatment of sludges at column 1, lines 10-39.

There are no examples of a material produced by using patentees diallyl ammonium compounds in combination with applicants amounts of PEG dimethacrylate although patentees disclose that applicants amounts of branching agent which include PEGDMA may be used in amounts encompassing applicants' in combination with monomers including applicants. Hence it would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention to select applicants components in applicants amounts from the disclosure of the patent in the expectation of adequate results absent any showing of surprising or unexpected results.

Patentees do not appear to disclose inverse emulsion polymerization as required by certain dependent claims. However page 1, lines 29-33 of applicants specification discloses that the advantage of inverse emulsion polymerization is known in the art for increasing molecular weights of flocculating polymers. Hence use of inverse emulsion polymerization would have been obvious to a practitioner having an ordinary skill in the

art at the time of the invention to confer the advantage of increased molecular weight absent any showing of surprising or unexpected results.

Applicant's arguments filed 9-20-07 have been fully considered but they are not persuasive. There is nothing in applicants specification as filed which would lead one skilled in the art to conclude that molar masses by GPC are intended. With regard to viscosities no concentrations or temperatures are recited, variable which would effect this characteristic.

With regard to Neff, it is not the position of the examiner that Neffs' examples suggests applicants' weight percent of the formula II unit. Rather, patentees disclose use of branching agent at a level of 80 molar parts at column 4, lines 4-5 and since the branching agent of the examples has a molecular weight of 600, which is about 4 times that of the monomers disclosed at column 4, lines 45-55, a weight parts of branching agent of about 4 times the molar parts (i.e. 320 parts per million or .03% of the PEG crosslinker of the examples) is implied .

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Jeffrey C. Mullis at telephone number 571 272 1075.

Jeffrey C. Mullis  
Primary Examiner  
Art Unit 1796

JCM

3-13-08

/Jeffrey C. Mullis/

Primary Examiner, Art Unit 1796